REMARKS/ARGUMENTS

Examiner H. T. Le is thanked for the continued thorough Search and Examination of the Subject Application for Patent.

Reconsideration of the Objection to Claim 19 is requested. Claim 19 has been amended to change "1" to -- 10 -- as required by the Examiner.

Reconsideration of the Rejection of Claims 1, 4-11, 14-23, 26-39, and 42-44 under 35 U.S.C. 102(e) as being anticipated by Grabau et al. (U.S. Pat. No. 6,147,662) is requested. Claims 1, 4-11, 14-23, 26-39, and 42-44 describe antennas comprising elements wherein the antenna elements are formed of conductive loaded resin-based materials, wherein the conductive loaded resin-based materials comprise micron conductive powders or micron conductive fibers.

Grabau et al. describe a method of forming radio frequency identification antenna elements. These antenna elements are formed by printing the antenna elements on a flexible substrate, such as a paper web. The antenna elements are formed by printing a conductive ink which is a "blend of thermoplastic resins and waxes which are solid at ambient temperature but become fluid at elevated at temperature, and which contain conductive polymer, or metal flakes (such as copper, silver, nickel, or aluminum), or a blend thereof", see column 1, lines 20-32. Grabau et al. also describe "printing an antenna with conductive ink or toner"; see column 2, lines 45-47 and column 3, lines

29-30. These printed antennas described by Grabau et al. are significantly different from the antennas described by Claims 1, 4-11, 14-23, 26-39, and 42-44 for the following reasons.

The antenna elements described by Claims 1, 4-11, 14-23, 26-39, and 42-44 are formed of conductive loaded resin-based materials comprising micron conductive powders or micron conductive fibers. The conductive materials described by Grabau et al. are formulated for performance as conductive inks used to print antenna elements on a dielectric substrate and are different from the conductive loaded resin-based materials comprising micron conductive powders or micron conductive fibers described in Claims 1, 4-11, 14-23, 26-39, and 42-44. The conductive inks using thermoplastic resins described by Grabau et al. comprise metal flakes (such as copper, silver, nickel, or aluminum) which are different from either the micron conductive powders or the micron conductive fibers described by Claims 1, 4-11, 14-23, 26-39, and 42-44. Metal flakes are generally flat while micron conductive powders are generally spherical and micron conductive fibers are generally cylindrical. It would be expected that metal flakes would work well for printing antenna elements with a conductive ink, however the electrical performance of antenna elements printed on a dielectric substrate using inks comprising metal flakes, as described by Grabau et al., can not be expected to be the same as the electrical performance of antenna elements formed of conductive loaded resin-based materials which comprise micron conductive powders or micron conductive fibers; as described by Claims 1, 4-11, 14-23, 26-39, and 42-44.

The conductive inks described by Grabau et al. use thermoplastic resins and waxes which are fluid at elevated temperatures to facilitate the printing of the antenna elements. These thermoplastic resins are different from the conductive loaded resin-based materials described in Claims 1, 4-11, 14-23, 26-39, and 42-44 which have no requirement to be fluid at elevated temperatures in order to facilitate printing.

Grabau et al. also describe printing an antenna with conductive ink or toner which is significantly different from the antennas and methods described in Claims 1, 4-11, 14-23, 26-39, and 42-43.

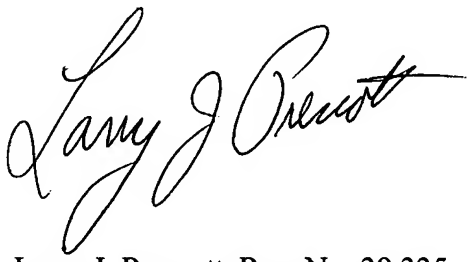
With regard to Claims 36-39 and 42-44, the methods of forming antenna elements described in Claims 36-39 and 42-44 use molding or extrusion of the conductive loaded resin-based materials to form the antenna elements. The antenna elements described by Grabau et al. are formed by printing conductive inks which is significantly different from molding or extrusion.

It is believed that Claims 1, 4-11, 14-23, and 26-35 are patentably distinct from the invention of Grabau et al. because the antenna elements of Claims 1, 4-11, 14-23, and 26-35 are formed of conductive loaded resin-based materials which comprise micron conductive powders or micron conductive fibers. It is believed that Claims 36-39 and 42-44 are patentably distinct from the invention of Grabau et al. because the antenna elements of Claims 36-39 and 42-44 are formed of conductive loaded resin-based materials which comprise micron conductive powders or micron conductive fibers and

are formed by means of molding and extrusion. Reconsideration of the Rejection of Claims 1, 4-11, 14-23, 26-39, and 42-44; as amended; under 35 U.S.C. 102(e) as being anticipated by Grabau et al.; and allowance of Claims 1, 4-11, 14-23, 26-39, and 42-44; are requested.

It is requested that should Examiner Le not find that the Claims are now Allowable that the Examiner call the undersigned Agent at (845)-462-5363 to overcome any problems preventing allowance.

Respectfully submitted,



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